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VOLUME 79 JANUARY 1957 NUMBER 1

Transactions

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Georgia

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Honolulu.....University of Hawaii Library

Idaho

Moscow.....University of Idaho
College of Engrg. Reading Room

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Wichita.....Wichita City Library

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Engrg. Library

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Love Library
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Thayer School of Engrg.

New Jersey

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Hoboken.....Stevens Institute of Technology Library
Newark.....Public Library
Newark College of Engineering Library
New Brunswick..Rutgers University Library and
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Paterson.....Public Library
Princeton.....Princeton University
School of Engrg. Library
Trenton.....*Public Library

New Mexico

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Pratt Institute
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New York.....College of the City of New York
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*Public Library
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Public Library
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University of Dayton Mech. Engrg. Dept.
Toledo.....*Public Library
University of Toledo Library
Youngstown.....Public Library
Youngstown University

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Oklahoma City...Public Library
Stillwater.....Oklahoma A & M College Engrg. Library
Tulsa.....*Public Library
University of Tulsa Library

Oregon

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Portland.....*Portland Library Association

Pennsylvania

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Easton.....Lafayette College Library
Erie.....Public Library
Haverford.....Haverford College
Lewisburg.....Bucknell University Library
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Carnegie Library (Schenley Park)
*Mellon Institute of Industrial Research Library
University of Pittsburgh Science-Technology Library and Mech. Engrg. Dept. Library
Reading.....Public Library
Scranton.....Public Library
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Villanova.....Villanova University Reference Room, Engrg. Library

Puerto Rico

Mayaguez.....University of Puerto Rico

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Providence.....Brown University Physical Science Library
Providence Engineering Society
*Public Library

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Rapid City.....South Dakota School of Mines and Technology, Mech. Engrg. Dept. Library

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Texas

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Houston.....Public Library
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Utah

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Tacoma.....Public Library

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Morgantown.....West Virginia University Library

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Milwaukee.....Marquette University Mech. Engrg. Dept.
*Public Library

Wyoming

Laramie.....Wyoming University Library Mech. Engrg. Dept.

IN OTHER COUNTRIES

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Facultad de Ciencias Exactas, Finicas y Naturales

Australia

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Brisbane.....University of Queensland
Canberra.....Australian National University
Melbourne.....Public Library of Victoria
University of Melbourne

Australia (continued)

Perth	University of Western Australia Library
Sydney	Public Library of Sydney
	Public Library of New South Wales
	Sydney Technical College
	University of Sydney
Wollongong	Wollongong Technical College

Austria

Vienna	Documentation Center of Technology
	Technische Hochschol

Belgium

Louvain	Library, University Louvain

Brazil

Rio de Janeiro	Bibliotheca da Escola Polytechnica
	Secao de Permuta Internacional
São Paulo	Bibliotheca da Escola Polytechnica
	Centro Technico de Aeronautica

Canada

Edmonton	University of Alberta
Hamilton	Hamilton Public Library
Kingston	Queen's University
	Mech. Engrg. Dept. Library
Montreal	École Polytechnique
	Engineering Institute of Canada
	McGill University
Quebec	Faculté Des Sciences
Saskatchewan	University of Saskatchewan
Toronto	University of Toronto
	Mech. Engrg. Dept. Library
Vancouver	University of British Columbia
	Mech. Engrg. Dept. Library
Winnipeg	University of Manitoba

Chile

Santiago	Universidad de Chile, Facultad de Ciencias Fisicas y Matematicas

Cuba

Havana	Cuban Society of Engineers

England

Birmingham	Birmingham Public Libraries
Bristol	University of Bristol
Cambridge	University of Cambridge
Coventry	Gulson Central Library
Hants	Southampton University
Leeds	University of Leeds
Liverpool	Liverpool Engineering Society
	Public Library of Liverpool
London	City and Guild Engineering College
	Institute of Marine Engineers
	Institution of Civil Engineers
	Institution of Electrical Engineers
	Institution of Mechanical Engineers
	Iron and Steel Institution
	Junior Institution of Engineers
	Patent Office Library
	Royal Aeronautical Society
	Science Museum Library
Manchester	Manchester Public Libraries
	College of Technology
	University of Manchester
Newcastle-upon-Tyne	The North-East Coast Institution of Engineers and Shipbuilders
Oxford	Oxford University
Sheffield	Sheffield Public Libraries

France

Paris	Écoles Nationales des Arts et Metiers
	École Centrale des Arts et Manufacturers
	Soc. des Ingenieurs Civils
	The American Library

Germany

Berlin	Bibliothek der Technischen Hochschule
	Zeitschrift für Angewandte Mathematik und Mechanik

Germany (continued)

Dusseldorf	Verein Deutscher Ingenieure
	Bucherei des Vereines Deutscher Eisenhuttenleute
Hamburg	Bibliothek der Technischen Staatslehranstalten
Hanover	Bucherei der Technischen Hochschule
Karlsruhe	Bucherei der Technischen Hochschule
Koln	Universitats- u. Stadtbibliothek
Leipsic	Stadtbibliothek
Munchen	Bibliothek der Technischen Hochschule
	Bucherei des Deutschen Museums
Stuttgart	Bucherei der Technischen Hochschule

Holland

Amsterdam	Koninklyke Akademie von Wetenschappen
Delft	Bibliotheek Technische Hoogeschool
The Hague	Koninklijk Instituut van Ingenieure
Rotterdam	Nationaal-Technisch-Scheepvaartkundig Instituut

India

Bangalore	Mysore Engineers Association
Calcutta	Bengal Engineering College
Poona	Poona College of Engineering
Rangoon	University of Rangoon

Ireland

Belfast	Queen's University of Belfast

Italy

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Torino	Biblioteca del Politechnico

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Wales

Cardiff	Cardiff Public Libraries

Indexes to ASME Papers and Publications

THIS and the following pages will serve as a guide to the current publications of the ASME.

Regular Society Publications, 1956

Mechanical Engineering, monthly (see index on page SR-83)
ASME Transactions, monthly (see index on page SR-105)
Journal of Applied Mechanics, quarterly (see index on page SR-117)
ASME Mechanical Catalog, 1957 edition.
Applied Mechanics Reviews, monthly.

Publications Issued in 1956

Books and Pamphlets
- 1955 ASME Transactions (bound form)
- Shock and Vibration Instrumentation
- 1955 Report on Oil and Gas Engine Power Costs
- Guide to Research in Air Pollution
- Instruments for the Study of Atmospheric Pollution
- Proceedings of Design Engineering Conference
- Engineering Tables
- Manual of Consulting Practice for Mechanical Engineers
- Proceedings of 1956 Oil and Gas Power Division Conference
- Structures for Thermal Flight
- Properties of Steam at High Pressures

Safety Codes and Standards
- 1956 Editions of:
  - Power Boiler Code
  - Material Specifications
  - Low-Pressure Heating Boiler Code
  - Unfired Pressure Vessel Code
  - Welding Qualifications
- Boiler and Pressure Vessel Code Interpretations Case Book
- Scheme for Identification of Piping Systems
- Life Tests for Single Point Tools of Sintered Carbide
- Ring-Joint Gaskets and Grooves for Steel Pipe Flanges
- Slotted and Recessed Head Wood Screws
- Hexagon and Slotted Head Cap Screws—Square Head Set Screws—Slotted Headless Set Screws
- 20-Degree Involute Fine-Pitch System for Spur and Helical Gears
- Design for Fine-Pitch Worm Gearing
- Inspection of Fine-Pitch Gears
- Test Code for Ejectors and Boosters

How to Find Papers Presented at 1956 ASME Meetings

THE technical programs of the meetings of the Society and of its Professional Divisions have been published in *Mechanical Engineering* and may be located by consulting the index on pages SR-83 to SR-104. Many of these papers will be published in *Mechanical Engineering* or the Transactions (including the *Journal of Applied Mechanics*) and may be located by reference to the indexes of these publications.

Publications Developed by the Technical Committees

THE Society's technical committees, the first of which was organized many years ago and all of which have been continuously at work on codes, standards, research, and other special reports, have developed a series of publications of permanent value to the membership. The following list is presented here for record and for ready reference. This list covers the works of these committees together with dates of publications and prices. A discount of 20 per cent is allowed to ASME members on all publications except where statement "No discount allowed" appears after price.

ASME AMERICAN STANDARDS

Bolt, Nut, and Rivet Proportions

Hexagon and Slotted Head Cap Screws—Square Head Set Screws—Slotted Headless Set Screws (B18.6.2—1956), $1.50
Large Rivets (B18.4—1950), $1.50
Plow Bolts (B18.9—1950), $1.50
Round Head Bolts (B18.5—1952), $1.00
Slotted and Recessed Head Wood Screws (B18.6.1—1956), $1.00
Small Solid Rivets (B18.1—1955), $1.50
Socket Head Cap Screws and Socket Set Screws (B18.3—1954), $1.50
Square and Hexagon Bolts and Nuts and Lag Bolts (B18.2—1955), $2.00
Track Bolts and Nuts (B18.10—1952), $1.50
High-Strength, High-Temperature Internal Wrenching Bolts (B18.8—1950), $1.00

Gear Design, Dimensions, and Inspection

Design for Fine-Pitch Worm Gearing (B6.9—1956), $1.50
Fine-Pitch Straight Bevel Gears (B6.8—1950), $1.00
Gear Nomenclature (B6.10—1954), $1.50
Inspection of Fine-Pitch Gears (B6.11—1956), $2.50
Gear Tolerances and Inspection (B6.6—1946), $1.50
Letter Symbols for Gear Engineering (B6.5—1954), $1.50
Spur Gear Tooth Form (B6.1—1932), $1.00
20-Degree Involute Fine-Pitch System for Spur and Helical Gears (B6.7—1956), $1.50
Nomenclature for Gear Tooth Wear and Failure (B6.12—1954), $1.50
System for Straight Bevel Gears (B6.13—1955), $1.00

Piping, Pipe Fittings, and Threads

Air Gaps and Backflow Preventers in Plumbing Systems (A40.4—1942 and A40.6—1943), $1.50
Brass Fittings for Flared Copper Tubes (A40.2—1936), $1.50
Brass or Bronze Flanges and Flanged Fittings for 150 and 300 Lb (B16.24—1953), $1.00
Brass or Bronze Screwed Fittings for 125 Lb (B16.15—1949; reaffirmed 1952), $1.50
Brass or Bronze Screwed Fittings for 250 Lb (B16.17—1949; reaffirmed 1953), $1.00
Butt-Welding Ends (B16.25—1955), $1.00
Cast-Brass Solder-Joint Fittings (B16.18—1950), $1.50
Cast-Brass Solder-Joint Drainage Fittings (B16.23—1956), $1.50
Cast-Iron Pipe Flanges and Flanged Fittings for 25 Lb Maximum Saturated Steam Pressure (B16b2—1931; reaffirmed 1952), $1.00
Cast-Iron Pipe Flanges and Flanged Fittings Class 125 (B16.1—1948, reaffirmed 1953), $1.50
Cast-Iron Pipe Flanges and Flanged Fittings Class 250 (B16b—1944; reaffirmed 1953), $1.50
Cast-Iron Pipe Flanges and Flanged Fittings for Refrigerant Piping, Class 300 (B16.16—1948; reaffirmed 1952), $1.00
Cast-Iron Pipe Flanges and Flanged Fittings for 800 Lb Maximum Hydraulic Pressure (B16b1—1931; reaffirmed 1952), $1.00

Cast-Iron Soil Pipe and Fittings (A40.1—1935), $2.00
Cast-Iron Screwed Fittings for 125 and 250 Lb Maximum Saturated Steam Pressure (B16.4—1949; reaffirmed 1953), $1.50
Cast-Iron Screwed Drainage Fittings (B16.12—1953), $1.00
Face-to-Face Dimensions of Ferrous Flanged and Welding End Valves (B16.10—1939; reaffirmed 1947), $1.50
Ferrous Plugs, Bushings, Lock Nuts, With Pipe Threads (B16.14—1949; reaffirmed 1953), $1.00
Malleable-Iron Screwed Fittings, 150 Lb (B16.3—1951), $1.50
Malleable-Iron Screwed Fittings, 300 Lb (B16.19—1951), $1.00
Nonmetallic Gaskets for Pipe Flanges (B16.21—1951), $1.00
Pipe Threads (B2.1—1945), $2.50
Ring-Joint Gaskets and Grooves for Steel Pipe Flanges (B16.20—1956), $1.00
Scheme for the Identification of Piping Systems (A13.1—1956), $1.00
Steel Pipe Flanges and Flanged Fittings for 150, 300, 400, 600, 900, 1500, and 2500 Lb, Including References to Valves (B16.5—1953), $3.00
Stainless-Steel Pipe (B36.19—1952), $1.00
Steel Butt-Welding Fittings (B16.9—1951), $1.50
Steel-Socket Welding Fittings (B16.11—1946; reaffirmed 1952), $1.00
Threaded Cast-Iron Pipe for Drainage, Vent, and Waste Services (A40.5—1943), $1.00
Wrought-Copper and Wrought-Bronze Solder-Joint Fittings (B16.22—1951), $1.00
Wrought-Steel and Wrought-Iron Pipe (B36.10—1950), $1.50

Letter and Graphical Symbols and Charts

Abbreviations for Scientific and Engineering Terms (Z10.1—1941), $0.50
Abbreviations for Use on Drawings (Z32.13—1950), $1.25
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Engineering and Scientific Charts for Lantern Slides (Z15.1—1947), $0.60
Time Series Charts (Z15.2—1947), $1.50
Graphical Symbols for Welding and Instructions for Their Use (Z32.2.1—1949), $3.00
Graphical Symbols for Plumbing (Y32.4—1955), $1.00
Graphical Symbols for Pipe Fittings, Valves and Piping (Z32.2.3—1949), $1.00
Graphical Symbols for Heating, Ventilating, and Air Conditioning (Z32.2.4—1949), $1.50
Graphical Symbols for Railway Use (Z32.2.5—1950), $1.50
Graphical Symbols for Heat—Power Apparatus (Z32.2.6—1950), $1.00
Letter Symbols for Chemical Engineering (Y10.12—1955), $1.50
Letter Symbols for Hydraulics (Z10.2—1942), $1.00
Letter Symbols for Mechanics of Solid Bodies (Z10.3—1948), $1.00
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A

ADAMS, C. N.
Batching natural gasoline through crude oil lines. Paper No. 55—PET-14.

AINSWORTH, C.
More engineering at less cost through the use of standard parts. Paper No. 55—MGT-11.

ALBRECHT, A. B.
Heavy-duty machining. Paper No. 55—S-42.

ALLEN, W. C.
Production considerations in machine design. Paper No. 55—MD-4.

ALSTADT, D. M.
Some fundamental aspects of the problem of rubber-metal adhesion.

ANDERSON, C. H., AND DIEHL, E. K.
Bonded fireside deposits in coal-fired boilers; a progress report on the manner of formation. Paper No. 55—A-200.

ANDERSON, J. A.
Evaluation, distribution, and training of creative men. Paper No. 55—A-211.

ARNOLD, J. E.
The creative engineer. Paper No. 55—A-163.

B

BEATTIE, W. C., DRISCOLL, J. M., AND SALVAGE, M.
Accelerated loading of large high-pressure, high-temperature turbine-generators. Paper No. 55—SA-63.

BECHTOLD, IRA C.
Automation; its effect upon the future of the process industries. Paper No. 55—IRD-12.

BERG, MILTON J.
U. S. Navy training film "Shipboard Vibration."

BODINE, ALFRED V.
The pursuit of happiness. Paper No. 55—A-96.

BOLWELL, HARRY J.
Engineering problems of power reactors. Paper No. 55—SA-77.

BONDI, A., BEAUBIEN, S. J., AND DIAMOND, H.
Physico-chemical investigation of engine-oil performance. Paper No. 55—LUB-5.

BOOTH, C. C., AND MACLAGEN, C. F.
Heat-cured resin adhesives.

BORSOFF, V. N., AND WAGNER, C. D.
Studies of formation and behavior of an extreme pressure film. Paper No. 55—LUB-25.

BRADDEN, G. D., WOOLARD, T. L., AND HORN, EDWARD P.
Sealing regenerative-type air preheaters for high-pressure differentials. Paper No. 55—S-41.

BREMER, ANDREW
Procedures for evaluating dynamic characteristics of valve operators. Paper No. 55—A-110.

BRIGGS, R. B.
Aqueous homogeneous reactors for producing central station power. Paper No. 55—A-219.

BRITTON, J. A., AND TENBROECH, E. H.
Comparison of design and service performance of some modern tankers. Paper No. 55—S-37.

BROCKETT, G. F., AND KENNEDY, W. J. L.
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Application of some systems-engineering principles to the design of a fuel supply system. Paper No. 55—SA-55.

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Production considerations in machine design. Paper No. 55—MD-2.

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CADWELL, W. C.
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Status of demineralising for treatment of boiler feedwater in today's power plants. Paper No. 55—A-199.

CAMPBELL, G. J.
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CLARK, J. A.
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